

Int'l Appl. No. : PCT/JP2003/015427
Int'l Filing Date : December 2, 2003

AMENDMENTS TO THE CLAIMS

Please add Claims 8-15.

1 (original): A resist pattern forming method, which comprises applying a positive resist composition comprising a resin component (A), which has an alkali-soluble unit content of less than 20 mol% and also has an acid dissociable dissolution inhibiting group, alkali solubility thereof being enhanced by action of acid, an acid generator component (B) which generates an acid under exposure, and an organic solvent (C) which dissolves the components (A) and (B) on a substrate; subjecting the resulting film to prebaking, selective exposure, post exposure baking and alkali development; performing a displacing step of displacing a liquid existing on the substrate with a displacing liquid at least one time; displacing the displacing liquid with a liquid for critical drying; and performing a drying step of drying the liquid for critical drying via a critical state.

2 (original): The resist pattern forming method according to claim 1, wherein the displacing step is performed after the alkali development and the subsequent water rinsing.

3 (original): The resist pattern forming method according to claim 1, wherein, in the displacing step, an operation of displacing the liquid existing on the substrate with a displacing liquid containing a surfactant is performed at least one time.

4 (original): The resist pattern forming method according to claim 1, wherein an inert fluorine liquid is used as the displacing liquid.

5 (original): The resist pattern forming method according to claim 1, wherein, in the displacing step, the liquid existing on the substrate is displaced with a first displacing liquid, and furthermore, the liquid existing on the substrate is displaced with a second displacing liquid.

6 (original): The resist pattern forming method according to claim 1, wherein the exposure is performed using a KrF excimer laser.

7 (original): The resist pattern forming method according to claim 1, wherein the exposure is performed using an ArF excimer laser.

8 (original): The resist pattern forming method according to claim 1, wherein the exposure is performed using an electron beam.

9 (original): A resist pattern obtained by the resist pattern forming method according to claim 1.

10 (original): The resist pattern according to claim 9, which has a line width of 20 to 130 nm, an aspect ratio of 2.0 to 10.0 and a pitch of 40 to 300 nm.

Int'l Appl. No. : PCT/JP2003/015427
Int'l Filing Date : December 2, 2003

11 (new): A method for forming a resist pattern comprising:
providing a positive resist composition comprising:
a resin component (A), alkali solubility of which is enhanced by action of acid, and which an acid dissociable dissolution inhibiting group and has an alkali-soluble unit content of less than 20 mol%;
an acid generator component (B) which generates an acid under exposure; and
an organic solvent (C) which dissolves the components (A) and (B);
applying the positive resist composition on a substrate to form a film;
subjecting the film to prebaking, selective exposure, post exposure baking, and alkali development;
displacing at least once a liquid existing on the substrate with a displacing liquid;
displacing at least once the displacing liquid with a liquid for critical drying; and
drying the liquid for critical drying through a critical state.

12 (new): The method according to claim 11, further comprising subjecting the film to water rinsing following the alkali development.

13 (new): The method according to claim 11, wherein an inert fluorine liquid is used as the displacing liquid.

14 (new): The method according to claim 11, wherein the step of displacing the liquid existing on the substrate comprises displacing the liquid with the displacing liquid used as a first displacing liquid, and further displacing the liquid with a second displacing liquid.

15 (new): The method according to claim 11, wherein the exposure is performed using a KrF excimer laser, an ArF excimer laser, or an electron beam.